U.S.S.N.: 09/890,112

Page 2

## Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

## 1. (Presently Amended) A compound of the following Formula I:

$$(Ar) \longrightarrow W \longrightarrow Z$$

$$(R^{1})_{m}$$

$$(R^{2})_{n}$$

wherein Ar is an optionally substituted heteroaromatic group having at least one amino substituent;

W is a chemical bond, optionally substituted amino, optionally substituted alkylene having 1 to about 3 carbon atoms, or aminoalkylene having 1 nitrogen and 1 or 2 carbon atoms;

X is nitrogen;

Z represents optionally substituted ethylene or optionally substituted vinyl;

each R<sup>1</sup> and R<sup>2</sup> independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

U.S.S.N.: 09/890,112

Page 3

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

- 2. (Cancelled).
- 3. (Previously Presented) A compound of the following Formula II:

$$(Ar)$$
— $CH_2$ — $X$ 
 $Z$ 
 $(R^1)_m$ 
 $(R^2)_n$ 

wherein Ar is an optionally substituted heteroaromatic group having at lease one amino substituent;

Z represents optionally substituted ethylene, or optionally substituted vinyl;

X is nitrogen;

each R<sup>1</sup> and R<sup>2</sup> independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

U.S.S.N.: 09/890,112

Page 4

## 4. (Previously Presented)

A compound of the following Formula IIA:

$$(Ar)$$
—NH—X Z IIA

wherein Ar is optionally substituted carbocyclic aryl or optionally substitutedheteroaromatic;

Z represents optionally substituted ethylene or optionally substituted vinyl;

X is nitrogen;

each R<sup>1</sup> and R<sup>2</sup> independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkoxy, optionally substituted aminoalkyl, optionally substituted alkylsulfonyl, optionally substituted alkylsulfonyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

## 5. (Presently Amended) A compound of the following Formula III:

U.S.S.N.: 09/890,112

Page 5

$$(R^3)_0$$
 $(R^2)_0$ 
 $(R^2)_0$ 

T, U and V are each independently optionally substituted carbon, or optionally substituted nitrogen wherein at least one of T, U, or V is optionally substituted nitrogen;

W is a chemical bond, optionally substituted amino, optionally substituted alkylene having 1 to about 3 carbon atoms, or aminoalkylene having 1 nitrogen and 1 or 2 carbon atoms;

X is nitrogen;

Z represents optionally substituted ethylene or optionally substituted vinyl; each R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl, optionally substituted alkynyl, optionally substituted alkoxy, optionally substituted aminoalkyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic, wherein at least one occurrence of R<sup>3</sup> is an amino group;

m and n are each independently an integer of from 0 to 4; o is an integer of from 1 to 5 and pharmaceutically acceptable salts thereof.

6. (Presently Amended) A compound of the following Formula IV:

U.S.S.N.: 09/890,112

Page 6

$$R^{1}$$
  $R^{2}$   $R^{2}$   $R^{2}$ 

U and V are each independently optionally substituted carbon, or optionally substituted nitrogen;

W is a chemical bond, optionally substituted amino, optionally substituted alkylene having 1 to about-3 carbon atoms, or aminoalkylene having 1 nitrogen and 1 or 2 carbon atoms;

X is nitrogen;

Z represents optionally substituted ethylene or optionally substituted vinyl;

each R<sup>1</sup> and R<sup>2</sup> independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

7. (Presently Amended) A compound of the following Formula IVA:

U.S.S.N.: 09/890,112

Page 7

U and V are each independently optionally substituted carbon, or optionally substituted nitrogen; or

V is O or S;

W is a chemical bond, optionally substituted amino, optionally substituted alkylene having 1 to about 3 carbon atoms, or aminoalkylene having 1 nitrogen and 1 or 2 carbon atoms;

X is nitrogen;

Z represents optionally substituted ethylene or optionally substituted vinyl;

each R<sup>1</sup> and R<sup>2</sup> independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

8. (Previously Presented) A compound of any one of claims 1, 3, 4, 5, 6 or 7 wherein Z is -- CH<sub>2</sub>CH<sub>2</sub>-.

U.S.S.N.: 09/890,112

Page 8

- 9. (Original) A compound of any one of claims 1, 2, 5, 6 or 7 wherein W is a bond, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, or NH.
- 10. (Previously Presented) A compound of claim 1 selected from the group consisting of:

N-[(2,4-diaminopteridin-6-yl)methyl]-9,10-dihydrodibenz[b,f]azepine;

N-[(2,4-diaminopteridin-6-yl)methyl]dibenz[b,f]azepine;

N-[(2,4-diaminopyrido[2,3-d]pyrimidin-6-yl)methyl]-9,10-dihydrodibenz[b,f]azepine;

N-[(2,4-diaminopyrido[3,2-d]pyrimidin-6-yl)methyl]-9,10-dihydrodibenz[b,f]azepine;

N-[(2,4-diaminoquinazolin-6-yl)methyl]-9,10-dihydrodibenz[b,f]azepine;

N-[(2,4-diaminothieno[2,3-d]pyrimidin-5-yl)methyl]-9,10-dihydrodibenz[b,f]azepine;

N-[(2,4-diaminofuro[2,3-d]pyrimidin-5-yl)methyl]-9,10-dihydrodibenz[b,f]azepine;

N-[(2,4-diaminopyrimidin-5-yl)methyl]-9,10-dihydrodibenz[b,f]azepine;

N-[(2,4-diaminopyrido[2,3-d]pyrimidin-6-yl)methyl]dibenz[b,f]azepine;

N-[(2,4-diaminopyrido[3,2-d]pyrimidin-6-yl)methyl]dibenz[b,f]azepine;

N-[(2,4-diaminoquinazolin-6-yl) methyl]dibenz[b,f]azepine;

N-[(2,4-diaminothieno[2,3-d]pyrimidin-5-yl)methyl]dibenz[b,f]azepine;

N-[(2,4-diaminofuro[2,3-d]pyrimidin-5-yl)methyl]dibenz[b,f]azepine;

N-[(2,4-diaminopyrimidin-6-yl)methyl]dibenz[b,f]azepine;

and

pharmaceutically acceptable salts thereof.

- 11. (Presently Amended) A method of treating a patient suffering from or susceptible to a parasitic disease, comprising administering to the patient an effective amount of a compound of claim 1 or claim 10, wherein the patient's immune system is suppressed.
- 12. (Presently Amended) A method of treating a patient suffering from or susceptible to toxoplasmosis, comprising administering to the patient an effective amount of a compound of claim 1 or claim 10, wherein the patient's immune system is suppressed.

U.S.S.N.: 09/890,112

Page 9

13. (Cancelled).

- 14. (Previously Presented) The method of claim 11 wherein the patient has a retrovirus infection.
- 15. (Previously Presented) The method of claim 11 wherein the patient has an HIV infection.
- 16. (Previously Presented) The method of claim 11 wherein the patient is suffering from AIDS.
- 17. (Previously Presented) The method of claim 11 wherein the patient has received or is receiving immunosuppressive cancer chemotherapy treatment.
- 18. (Presently Amended) A method of treating a patient suffering from or susceptible to cryptosporidiosis, leischmaniasis or malaria, comprising administering to the patient an effective amount of a compound of claim1 or claim 10, wherein the patient's immune system is suppressed.
- 19. (Presently Amended) A method of treating a patient suffering from or susceptible to an infection of *Toxoplasma gondii*, *Pnemocytis carinii*, *Cryptosporidium*, *Leishmania*, *Plasmodium vivax*, *P. falciparum*, *P. malarie*, or *P. ovale*, comprising administering to the patient an effective amount of a compound of claim 1 or claim 10, wherein the patient's immune system is suppressed.
- 20. (Presently Amended) A method of treating a patient suffering from or susceptible to a *Toxoplasma gondii* infection, comprising administering to the patient an effective amount of a compound of claim 1 or claim 10, wherein the patient's immune system is suppressed.

U.S.S.N.: 09/890,112

Page 10

- 21. (Presently Amended) A method of treating a patient suffering from or susceptible to tuberculosis, comprising administering to the patient an effective amount of a compound of claim 1 or claim 10, wherein the patient's immune system is suppressed.
- 22. (Previously Presented) A method of claim 11 wherein the disease is treated without administration of a sulfa drug to the patient.
- 23. (Previously Presented) The method of claim 11 wherein the patient is a mammal.
- 24. (Previously Presented) The method of claim 11 wherein the patient is a human.
- 25. (Previously Presented) A method of claim 11 wherein the patient is a livestock animal, poultry or a domesticated animal.
- 26. (Presently amended) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound of any one of claims 1-10 claims 1-7 or 10.
  - 27. (Cancelled).
- 28. (Previously Presented) The method of claim 12 wherein the patient has a retrovirus infection.
- 29. (Previously Presented) The method of claim 12 wherein the patient has an HIV infection.

U.S.S.N.: 09/890,112

Page 11

- 30. (Previously Presented) The method of claim 12 wherein the patient is suffering from AIDS.
- 31. (Previously Presented) The method of claim 12 wherein the patient is a human.
- 32. (Previously Presented) The method of claim 20 wherein the patient is a human.
- 33. (Previously Presented) The method of claim 12 wherein the patient is a livestock animal, poultry or a domesticated animal.
- 34. (Previously Presented) The method of claim 20 wherein the patient is a livestock animal, poultry or a domesticated animal.